IN THE CLAIMS:

The following is a complete listing of claims in this application.

Claim 1-4 (canceled).

5. (new) Microwave device for interstitial, percutaneous, laparoscopic, endoscopic and intra-operation applications in medicine and surgery, for applications of acute hyperthermia in oncology, comprising:

an inner conductor,

a dielectric layer that covers said inner conductor over its length,

an external conductor that coaxially covers said dielectric layer except for an end portion of the dielectric layer and inner conductor, said external conductor forming together with said dielectric layer and said inner conductor a co-axial antenna,

a hollow needle coaxially surrounding said antenna for introducing said antenna in a target tissue and which coaxially guides said antenna into the target tissue along an introduction direction,

said needle having in a distal end portion thereof a side opening and a chute guide, said chute guide guiding said antenna through said side opening causing it to enter the target tissue along an actuation direction that forms an angle $\parallel \alpha$ with respect to said needle.

- 6. (new) Microwave device according to claim 5, wherein said needle has, in the distal end portion thereof, a stiff blocking material having a tapered inner face forming said chute guide and a sharp external face.
- 7. (new) Microwave device according to claim 5, wherein said needle is blind in the distal end portion thereof, said needle having a gradually increasing thickness at said side

opening in order to form said chute guide.

8. (new) Microwave device according to claim 5, additionally comprising a flexible metal mandrel which is slidable in said hollow needle in the actuation direction prior to introduction of the antenna therein and which is constructed and arranged to protrude through said side opening for making an inlet hole in the tissue for treatment.